

**SITE SPECIFIC ALTERNATIVE PRACTICE  
CHECKLIST ENVIRONMENTAL ASSESSMENT**

<b>Project Name:</b>	Maguire Property Salvage Sale
<b>Proposed Implementation Date:</b>	November 15, 2008
<b>Proponent:</b>	Sun Mountain Lumber
<b>Location:</b>	Sections 7, T2N, R9W
<b>County:</b>	Silver Bow
<b>Land Owner:</b>	Matthew & Kristin Maguire
<b>HRA #:</b>	

**I. TYPE AND PURPOSE OF ACTION**

**A. Type of Action: SMZ Alternative Practice:**

Proponent is requesting an SMZ Alternative Practice to Rule 4:(36.11.304), *Operation of Equipment in the SMZ*.

Sun Mountain Lumber is proposing a salvage timber harvest on lands belonging to Matthew & Kristin Maguire, which is located approximately 12 miles west of Butte, Montana. Lodgepole pine damaged by mountain pine beetle (MPB) has been marked for removal.

**Indicators – Mountain Pine Beetle:**

Field evaluations varified increased mountain pine beetle activity. Indications of bark beetle activity include:

- Popcorn-shaped masses of resin, called "pitch tubes," on the trunk where beetle tunneling begins. Pitch tubes may be brown, pink or white.
- Boring dust in bark crevices and on the ground immediately adjacent to the tree base.
- Evidence of woodpecker feeding on trunk. Patches of bark are removed and bark flakes lie on the ground or snow below tree.
- Foliage turning yellowish to reddish throughout the entire tree crown. This usually occurs eight to 10 months after a successful Mountain Pine Beetle attack.
- Presence of live MPB (eggs, larvae, pupae and/or adults) as well as galleries under bark. This is the most certain indicator of infestation. A hatchet for removal of bark is needed to check trees correctly.
- Blue-stained sapwood. Check at more than one point around the tree's circumference.<sup>1</sup>

The proponent would like to grapple skid trees inside a 50-foot SMZ on a class-1 stream segment. The Alternative Practice will involve skidding approximately ten truck loads of trees across an un-named stream. A 310-permit has been granted for this project. There will be no other skidding in the SMZ other than at the crossing site. The operation will be done during frozen ground conditions as well.

A cabled log-bundle would be placed in the channel during frozen ground conditions to facilitate skidding of logs. Log-bundle would be removed before May, 2009 or spring runoff, whichever comes first. Slash would be placed on skid trail approaches and grass seed spread to prevent/reduce

<sup>1</sup> D.A. Leatherman, "Mountain Pine Beetle", # 5.528, Colorado State University Cooperative Extension. Available at: <http://www.ext.colostate.edu/pubs/insect/05528.html>

sediment runoff. In addition, a slash-filter windrow would be constructed parallel the stream channel, five yards upslope from the OHWM. Two slash-filter windrows would be built, one on each side of the stream channel along the abandoned skid trail.



#### B. Purpose of Action: Timber Harvest

Proponent has put forth a salvage timber harvest to mitigate impacts to private property caused by MPB. This action should also increase forest health and vigor as well as provide a source of income to the landowner.

## II. PROJECT DEVELOPMENT

### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

Sun Mountain Lumber has obtained a 310 permit from the Mile High Conservation District to install a log-bundle crossing. This permit has been reviewed and approved by Montana Fish, Wildlife, and Parks as part of the permitting process.

### 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

None required for the alternative practice request.

### 3. ALTERNATIVES CONSIDERED:

#### 3.1 Alternative “A”: Not approve Alternative Practice (No Action)

Proposed SMZ Alternative Practice would not be approved. Current MPB conditions would most likely increase, resulting in significant damage to the remaining non-infested lodgepole pine. The proposed forest management and harvesting actions would be abandoned.

### 3.2 Alternative “B”: Alternative as Proposed

Allow SMZ Alternative Practices as proposed with additional mitigation measures.

**Equipment Operation:** To reduce impacts of additional road/skid trail construction, the proponent would like to construct a cabled log-bundle crossing at one location along an un-named class-1 stream. This structure would be used during frozen ground conditions, being removed before May, 2009 or spring runoff, whichever comes first. Mitigation measures would consist of placing slash on skid trails within the SMZ and grass seeding. A slash-filter windrow would be constructed parallel the stream channel, five yards upslope from the OHWM. Two slash-filter windrows would be built, one on each side of the stream channel along the abandoned skid trail.

## III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter “NONE” If no impacts are identified or the resource is not present.*

### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

Harvest operations should be done during dry ground conditions to prevent rutting. Degradation to the soil should be minimal due to the relatively small amount of forest products being skidded across the log-bundle in the SMZ. Mitigation measures such as grass seeding exposed soil, placing slash on skid trails and constructing slash-filter windrows should reduce the potential for sediment runoff.

### 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

**Is it possible that implementing this Alternative Practice would impact the integrity of the SMZ and these specific functions?**

1. Ability to act as an effective sediment filter.
2. Ability to provide shade to regulate stream temperature.
3. Protection of stream channel and banks.
4. Ability to provide large woody debris for eventual recruitment into the stream to maintain riffles, pools and other elements of channel stability.
5. Promotes floodplain stability.

The proposed project would be implemented during dry ground conditions and should not adversely impact the six functions of a SMZ, as identified in the SMZ law (77-5-301[1] MCA).

1. Harvest operation would take place during dry ground conditions to prevent soil rutting. Because of this and the small amount of wood being harvested, minimal disturbance to the soil is expected. Additional measures such as placing slash on skid trails within the SMZ and grass seeding as well as constructing slash-filter windrow parallel the stream channel, should reduce the potential for surface runoff.
2. Tree retention minimums shall be maintained so as to not adversely impact shade which regulated stream temperature.

3. A cabled log-bundle shall be placed in the stream channel to prevent damage to the streambed and banks.
4. Tree retention minimums shall be maintained to provide future large woody debris for eventual recruitment into the stream channel.
5. Log-bundle structure would be removed by May, 2009 or spring runoff, whichever comes first.

**6. AIR QUALITY:**

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

None.

**7. VEGETATION COVER, QUANTITY AND QUALITY:**

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

Implementation of these alternative practices with proposed mitigation measures should not dramatically impact any vegetative communities within the SMZ.

**8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

Would implementing this Alternative Practice impact the ability of the SMZ to support diverse and productive aquatic and terrestrial habitats?

Mountain pine beetle is prevalent in mature lodgepole pine found throughout this ownership. The declining forested stand should give way to a flush of new pine regeneration after harvest, changing terrestrial habitats. Implementation of this alternative practice in and of itself should not dramatically impact aquatic and terrestrial habitats.

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

None.

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

None.

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

None.

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

None.

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

None.

**IV. IMPACTS ON THE HUMAN POPULATION**

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

None.

**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

None.

**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

None.

**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

None.

**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.*

None.

**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

None.

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

None.

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

None.

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

None.

**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

None.

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

None.

<b>EA Checklist Prepared By:</b>	<b>Name:</b>	Shawn P. Morgan	<b>Date:</b>	11/06/2008
	<b>Title:</b>	Helena Unit Forester		

**V. FINDING****25. ALTERNATIVE SELECTED:**

ALTERNATIVE AS MITIGATED: Approve alternative practice to allow operation of equipment in the SMZ. A log-bundle structure shall be constructed in a un-named class-1 stream channel to facilitate skidding of rough forest products.

The following mitigation measures are recommended:

1. This structure would be used during frozen ground conditions, being removed before May, 2009 or spring runoff, whichever comes first.
2. Slash would be placed on skid trails within the SMZ and grass seeded.
3. A slash-filter windrow would be constructed parallel the stream channel, five yards upslope from the OHWM. Two slash-filter windrows would be built, one on each side of the stream channel along the abandoned skid trail.

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

Measures Recommended To Mitigate Potential Impacts: None expected. See Section 25 of this document, mitigation measures.

<b>27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:</b>					
		EIS		More Detailed EA	<b>X</b> No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b>	D.J. Bakken			
	<b>Title:</b>	DNRC, Helena Unit Manager			
<b>Signature:</b>	/s/ Darrel J. Bakken			<b>Date:</b>	11/6/2008

**ATTACHMENTS**  
SMZ Alternative Practice Map



*Matthew & Kristin Maguire Property  
Section 7, T2N, R9W*

